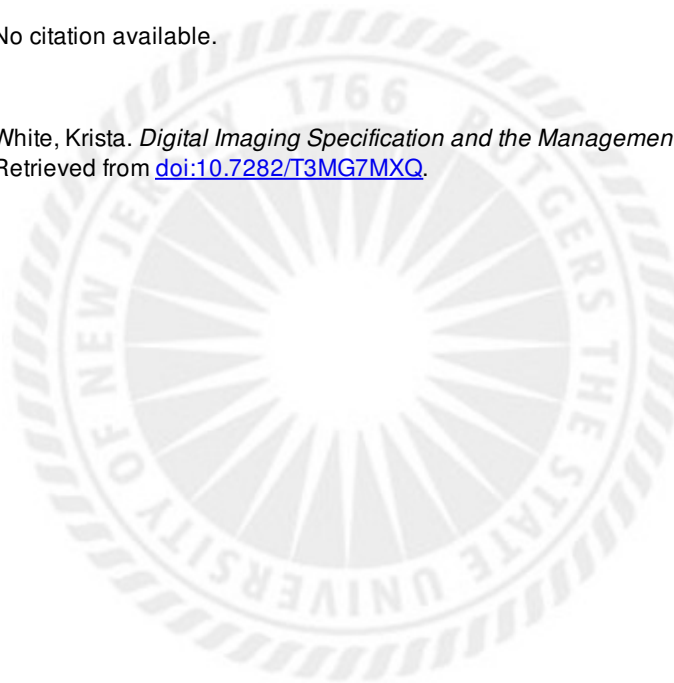


Digital Imaging Specification and the Management of Digital Storage Needs

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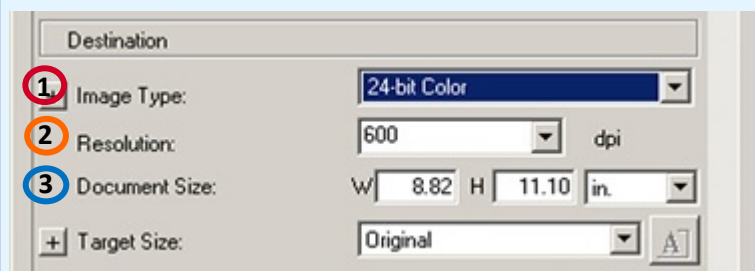
Article begins on next page

Equation for Calculating Uncompressed Digital File Size in Bytes from Analog Image and Document Collections

$$\text{image width} \times \text{image height} \times \text{resolution}^2 \times \text{bit depth}$$

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Application of Digitization Standards: RUcore Color Photos and Documents



Transcript Files for Large Oral History Project

22,495 Uncompressed Archival Master Pages

8.82 x 11.10 inches

24 bit color

600 ppi

100.84 MB/Page

22,495 Pages = **2.16TB**

RUcore Archival Standards for Digitizing Analog Images and Documents

Color photos and documents:

- minimum 600 dpi
- Color space: sRGB, 24 bit truecolor, 8 bits/channel
- TIFF format, no compression or lossless (LZW) compression



Illuminated Preaching Manual from the Capuchin Monastery Archives and Library

Black and white documents with gray tones, or black and white photos:

- minimum of 600 dpi.
- Color space: grayscale.
- TIFF format, no compression or lossless (LZW) compression.

Black and white documents with pure text and line drawings; no photographs or items with greyscale tones of any kind:

- minimum of 400 dpi.
- Color space: 2 bit color (black and white), 50% threshold
- TIFF format, with no or lossless (LZW) compression.

(Beard, et. al., 2010)

Elements Contributing to the Quality and File Size of Scanned Images

- 1 Bit Depth** is the amount of information the computer or camera stores about each pixel of **Resolution**. Higher bit depth increases digital image quality and increases file size
- 2 Resolution** is the number of points of information a scanner or camera records about an image. More points of information equates to higher quality and increases file size.
- 3 Document Size** contributes to the overall size of digital files in that there is more area about which the computer or camera must store information.

Application of the Research to the Management of Digitization Projects

Calculate total storage needs for digital collections

- Strategic planning
- Grant proposals

Evaluate digitization best practices/standards

- Determine which practices are realistic given storage needs and budgetary constraints
- Determine which practices will provide the best possible quality to meet institutional and project goals

Evaluate hardware and software for project purchases

- Choose equipment that allows adherence to chosen quality standards

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